

PNP SILICON EPITAXIAL TRANSISTOR  
MINI MOLD

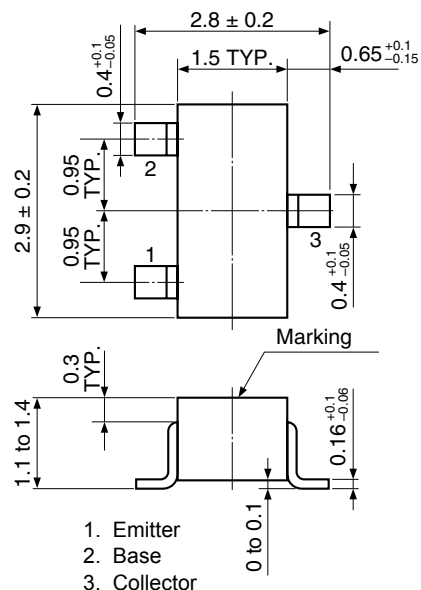
FEATURES

- Complementary to 2SC1623
- High DC Current Gain:  $h_{FE} = 200$  TYP. ( $V_{CE} = -6.0$  V,  $I_C = -1.0$  mA)
- High Voltage:  $V_{CEO} = -50$  V

ABSOLUTE MAXIMUM RATINGS ( $T_A = 25^\circ\text{C}$ )

Collector to Base Voltage	$V_{CBO}$	-60	V
Collector to Emitter Voltage	$V_{CEO}$	-50	V
Emitter to Base Voltage	$V_{EBO}$	-5.0	V
Collector Current (DC)	$I_C$	-100	mA
Total Power Dissipation	$P_T$	200	mW
Junction Temperature	$T_j$	150	$^\circ\text{C}$
Storage Temperature Range	$T_{stg}$	-55 to +150	$^\circ\text{C}$

<R> PACKAGE DRAWING (Unit: mm)



ELECTRICAL CHARACTERISTICS ( $T_A = 25^\circ\text{C}$ )

CHARACTERISTIC	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITIONS
Collector Cut-off Current	$I_{CBO}$			-0.1	$\mu\text{A}$	$V_{CB} = -60$ V, $I_E = 0$ A
Emitter Cut-off Current	$I_{EBO}$			-0.1	$\mu\text{A}$	$V_{EB} = -5.0$ V, $I_C = 0$ A
DC Current Gain	$h_{FE}$	90	200	600		$V_{CE} = -6.0$ V, $I_C = -1.0$ mA <sup>Note</sup>
Collector Saturation Voltage	$V_{CE(sat)}$		-0.18	-0.3	V	$I_C = -100$ mA, $I_B = -10$ mA
Base to Emitter Voltage	$V_{BE}$	-0.58	-0.62	-0.68	V	$V_{CE} = 6.0$ V, $I_C = -1.0$ mA
Gain Bandwidth Product	$f_r$		180		MHz	$V_{CE} = -6.0$ V, $I_E = 10$ mA
Output Capacitance	$C_{ob}$		4.5		pF	$V_{CB} = -10$ V, $I_E = 0$ A, $f = 1.0$ MHz

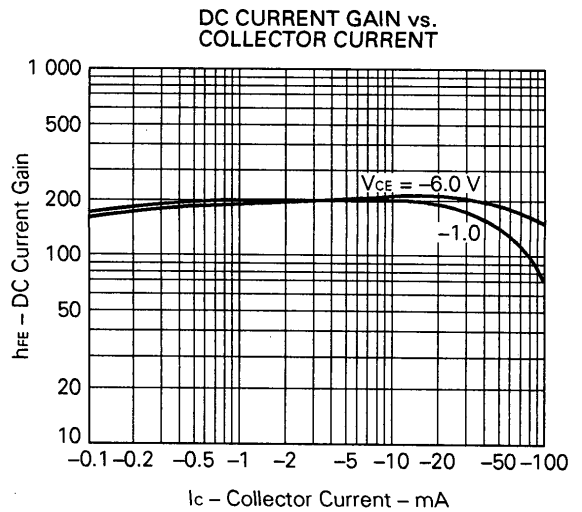
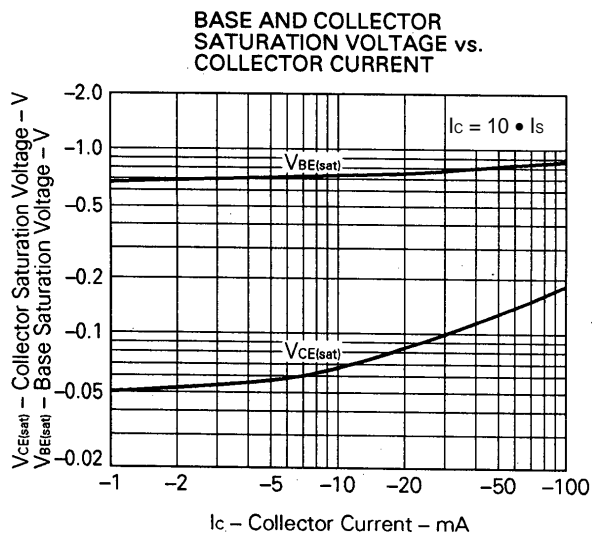
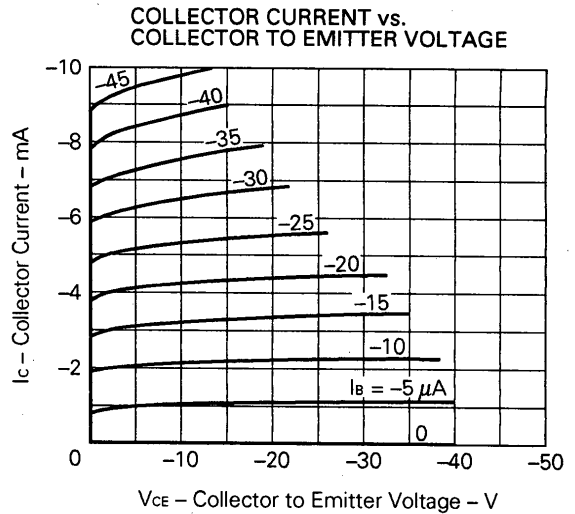
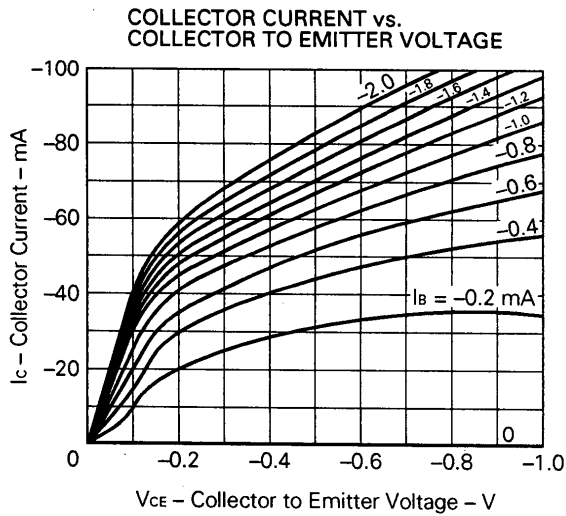
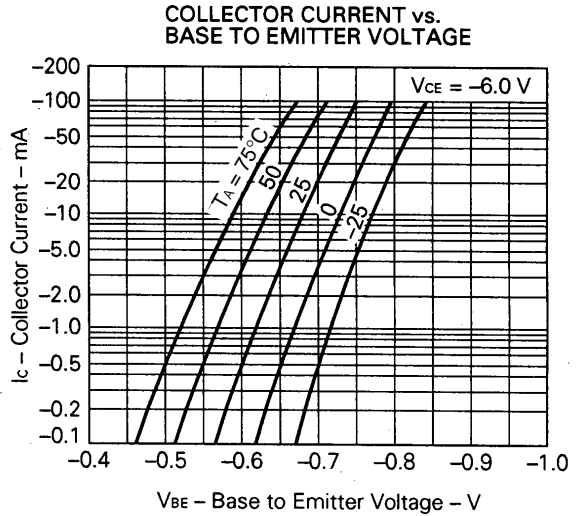
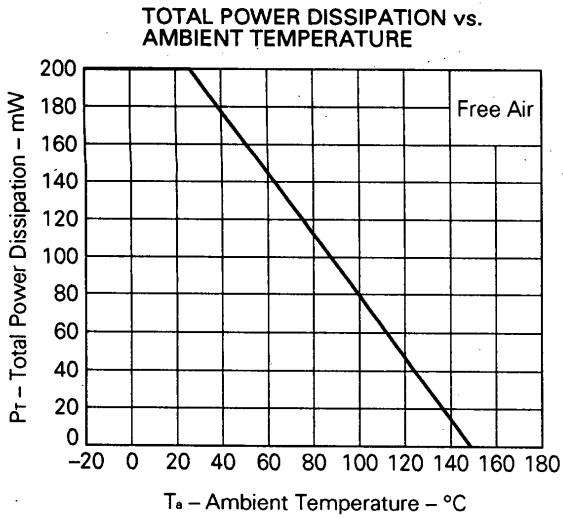
Note Pulsed:  $PW \leq 350 \mu\text{s}$ , Duty Cycle  $\leq 2\%$

$h_{FE}$  CLASSIFICATION

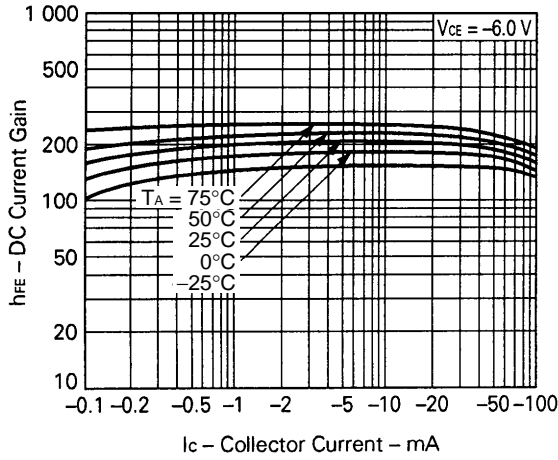
Marking	M4	M5	M6	M7
$h_{FE}$	90 to 180	135 to 270	200 to 400	300 to 600

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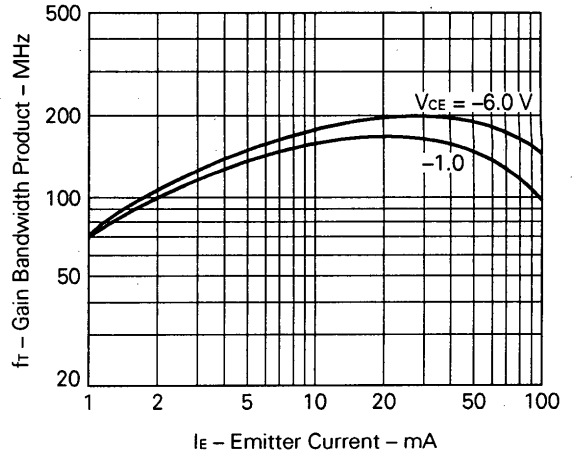
<R> TYPICAL CHARACTERISTICS (T<sub>A</sub> = 25°C)



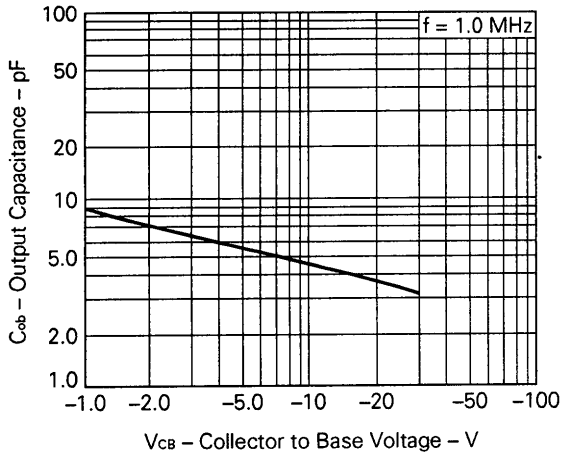
DC CURRENT GAIN vs. COLLECTOR CURRENT



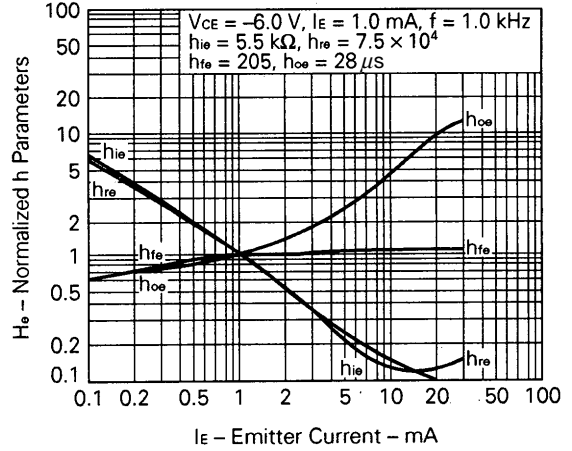
GAIN BANDWIDTH PRODUCT vs. EMITTER CURRENT



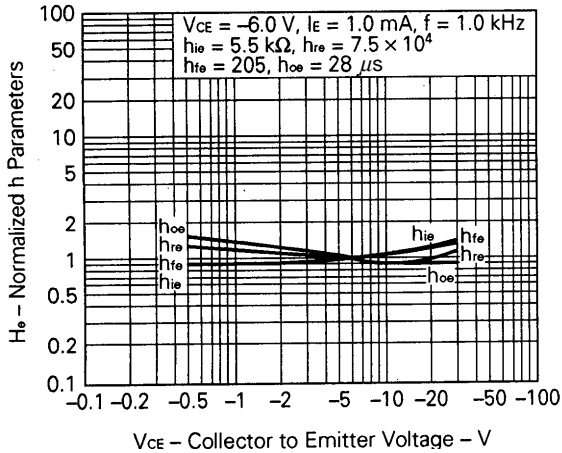
OUTPUT CAPACITANCE vs. REVERSE VOLTAGE



NORMALIZED h PARAMETER vs. EMITTER CURRENT



NORMALIZED h PARAMETER vs. COLLECTOR TO EMITTER VOLTAGE



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